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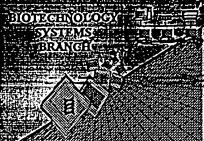
- BLACK BORDERS
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Application Serial Number:

Source:

Date Processed by STIC:

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

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TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER** VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

## Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2Kcompliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address: http://www.uspto.gov/web/offices/pac/checker



## Raw-Sequence Listing Error Summary

#### ERROR DETECTED SUGGESTED CORRECTION SERIAL NUMBER: ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE The number/text at the end of each line "wrapped" down to the next line. Wrapped Nucleics This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping". The amino acid numberited at the end of each line "wrapped" down to the next line. Wrapped Aminos This may occur if your file was retrieved in a word processor after creating IL. Please adjust your right margin to .3, as this will prevent "wrapping". The rules require that a line not exceed 72 characters in length. This includes spaces Incorrect Line Length The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs Misaligned Amlno Acld between the numbering. It is recommended to delete any tabs and use spacing between the numbers. Numbering This file was not saved in ASCII (DOS) text, as required by the Sequence Rules. Non-ASCII Please ensure your subsequent submission is saved in ASCII text so that it can be processed. contain n's or Xaa's which represented more than one residue. Variable Length As per the rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and Indicate In the (ix) feature section that some may be missing. A "bug" in Patentin version 2.0 has caused the <220>-<223> section to be missing from amino acid Patentin ver. 2.0 "bug" . Normally, Patentin would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223> sections for Artificial or Unknown sequences. missing. If Intentional, please use the following format for each skipped sequence: Skipped Sequences Sequence(s) (2) INFORMATION FOR SEQ ID NO:X: (OLD RULES) (i) SEQUENCE CHARACTERISTICS:(Do not Insert any headings under "SEQUENCE CHARACTERISTICS") (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: This sequence is intentionally skipped Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s). Sequence(s) \_\_\_\_ missing. If intentional, please use the following format for each skipped sequence. **Skipped Sequences** (NEW RULES) <210> sequence id number <400> sequence id number 000 Use of n's and/or Xaa's have been detected in the Sequence-Listing. Use of n's or Xaa's Use of <220> to <223> is MANDATORY if n's or Xaa's are present. (NEW RULES) In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents. Use of <213>Organism are missing this mandatory field or its response. Sequence(s) (NEW RULES) \_ are missing the <220>Feature and associated headings. Use of <220>Feature Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown" (NEW RULES) Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules) Please do not use "Copy to Disk" function of Patentln version 2.0. This causes a corrupted Patentin ver. 2.0 "bug" file, resulting in missing mandatory numeric identifiers and responses (as Indicated on raw sequence listing). Instead, please use "File Manager" or any other means to copy file to floppy disk.

1645

RAW SEQUENCE LISTING

DATE: 09/06/2000

PATENT APPLICATION: US/09/595,526

TIME: 11:05:03

Input Set : A:\CVT 158.txt

Output Set: N:\CRF3\09062000\1595526.raw

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              Wade, David
              Garvin, Michael
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              Oram, John F.
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     23 <130> FILE REFERENCE: 99,395-A
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C--> 29 <141> CURRENT FILING DATE: 2000-06-16
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     41 <151> PRIOR FILING DATE: 1999-08-14
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Does Not Comply Corrected Diskette Needed RAW SEQUENCE LISTING PATENT APPLICATION: US/09/595,526

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RAW SEQUENCE LISTING

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Input Set : A:\CVT 158.txt

Output Set: N:\CRF3\09062000\1595526.raw

315 acctatacct atgtgaaact ctattatgga acccaatgga catatgggtt tgaactcaca 7380 317 ctttttttt ttttttgttc ctgtgtattc tcattggggt tgcaacaata attcatcaag 7440 319 taatcatggc cagcgattat tgatcaaaat caaaaggtaa tgcacatcct cattcactaa 7500 321 gccatgccat gcccaggaga ctggtttccc ggtgacacat ccattgctgg caatgagtgt 7560 323 gccagagtta ttagtgccaa gtttttcaga aagtttgaag caccatggtg tgtcatgctc 7620 325 acttttgtga aagctgctct gctcagagtc tatcaacatt gaatatcagt tgacagaatg 7680 327 gtgccatgcg tggctaacat cctgctttga ttccctctga taagctgttc tggtggcagt 7740 329 aacatgcaac aaaaatgtgg gtgtctctag gcacgggaaa cttggttcca ttgttatatt 7800 331 gtcctatgct tcgagccatg ggtctacagg gtcatcctta tgagactctt aaatatactt 7860 333 agateetggt aagaggeaaa gaateaacag ecaaactget ggggetgeaa getgetgaag 7920 335 ccagggcatg ggattaaaga gattgtgcgt tcaaacctag ggaagcctgt gcccatttgt 7980 337 cctgactgtc tgctaacatg gtacactgca tctcaagatg tttatctgac acaagtgtat 8040 339 tatttctggc tttttgaatt aatctagaaa atgaaaagat ggagttgtat tttgacaaaa 8100 341 atgtttgtac tttttaatgt tatttggaat tttaagttct atcagtgact tctgaatcct 8160 343 tagaatggcc tctttgtaga accetgtggt atagaggagt atggccactg ccccactatt 8220 345 tttattttct tatgtaagtt tgcatatcag tcatgactag tgcctagaaa gcaatgtgat 8280 347 ggtcaggatc tcatgacatt atatttgagt ttctttcaga tcatttagga tactcttaat 8340 349 ctcacttcat caatcaaata ttttttgagt gtatgctgta gctgaaagag tatgtacgta 8400 351 cgtataagac tagagagata ttaagtotoa gtacacttoo tgtgccatgt tattoagoto 8460 353 actggtttac aaatataggt tgtcttgtgg ttgtaggagc ccactgtaac aatattgggc 8520 355 agcctttttt ttttttttt aattgcaaca atgcaaaagc caagaaagta taagggtcac 8580 357 aagtttaaac aatgaattet teaacaggga aaacagetag ettgaaaact tgetgaaaaa 8640 359 cacaacttgt gtttatggca tttagtacct tcaaataatt ggctttgcag atattggata 8700 361 coccattaaa totgacagto toaaattttt catotottoa atcactagto aagaaaaata 8760 363 taaaaacaac aaatacttcc atatggagca tttttcagag ttttctaacc cagtcttatt 8820 365 tttctagtca gtaaacattt gtaaaaatac tgtttcacta atacttactg ttaactgtct 8880 367 tgagagaaaa gaaaaatatg agagaactat tgtttgggga agttcaagtg atctttcaat 8940 369 atcattacta acttetteca etttttecaa aatttgaata ttaaegetaa aggtgtaaga 9000 371 cttcagattt caaattaatc tttctatatt ttttaaattt acagaatatt atataaccca 9060 373 ctgctgaaaa agaaaaaaat gattgtttta gaagttaaag tcaatattga ttttaaatat 9120 375 aagtaatgaa ggcatatttc caataactag tgatatggca tcgttgcaat ttacagtatc 9180 377 ttcaaaaata cagaatttat agaataattt ctcctcattt aatattttc aaaatcaaag 9240 379 ttatggtttc ctcattttac taaaatcgta ttctaattct tcattatagt aaatctatga 9300 381 gcaacteett actteggtte etetgattte aaggeeatat tttaaaaaat caaaaggeac 9360 383 tgtgaactat tttgaagaaa acacgacatt ttaatacaga ttgaaaggac ctcttctgaa 9420 385 gctagaaaca atctatagtt atacatcttc attaatactg tgttaccttt taaaatagta 9480 387 attttttaca ttttcctgtg taaacctaat tgtggtagaa atttttacca actctatact 9540 389 caatcaagca aaatttetgt atatteeetg tggaatgtae etatgtgagt tteagaaatt 9600 391 ctcaaaatac gtgttcaaaa atttctgctt ttgcatcttt gggacacctc agaaaactta 9660 393 ttaacaactg tgaatatgag aaatacagaa gaaaataata agccctctat acataaatgc 9720 395 ccagcacaat tcattgttaa aaaacaacca aacctcacac tactgtattt cattatctgt 9780 397 actgaaagca aatgctttgt gactattaaa tgttgcacat cattcattca ctgtatagta 9840 W--> 399 atcattgact aaagccattt gctgtgtttt cttcttgtgg (htghatatat caggtaaaat 9900 401 attttccaaa gagccatgtg tcatgtaata ctgaaccctt tgatattgag acattaattt 9960 W--> 403 ggacccttgg tattatctac tagaataatg taatactqn gaaatattgc tctaattctt 10020 w--> 405 tcaaaatggt gcatccccct taaaangttc tatttccata aggatttagc ttgcttatcc 10080 407 cttcttatac cctaagatga agctgttttt gtgctctttg ttcatcattg gccctcattc 10140 409 caagcacttt acgetgtetg taatgggate tatttttgca etggaatate tgagaattge 10200 411 aaaactagac aaaagtttca caacagattt ctaagttaaa tcattttcat taaaaggaaa 10260

> <221> name/key <221> name/key <222> location <223> other info.

mondatory

mondatory

missing features

L2207 to L2237 features

to explain "n's" in

Sequence. See

# 10 on Error

Summary Sheet.

This error has

been indicated

elsewhere in the

sequence listing. Please

check and correct.

RAW SEQUENCE LISTING PATENT APPLICATION: US/09/595,526 DATE: 09/06/2000 TIME: 11:05:03

Input Set: A:\CVT 158.txt
Output Set: N:\CRF3\09062000\1595526.raw

```
413 aaagaaaaaa aattttgtat gtcaataact ttatatgaag tattaaaatg catatttcta 10320
415 tgttgtaata taatgagtca caaaataaag ctgtgacagt tctgttaaaa aaaaaaaaa 10380
422 <210> SEQ ID NO: "2"
424 <211> LENGTH: 2261
426 <212> TYPE: PRT
428 <213> ORGANISM: Homo sapiens
432 <400> SEQUENCE: 2
434 Met Ala Cys Trp Pro Gln Leu Arg Leu Leu Trp Lys Asn Leu Thr
440 Phe Arg Arg Gln Thr Cys Gln Leu Leu Glu Val Ala Trp Pro
442 20 25 30
    Leu Phe Ile Phe Leu Ile Leu Ile Ser Val Arg Leu Ser Tyr Pro Pro 35 40 45
    Tyr Glu Gln His Glu Cys His Phe Pro Asn Lys Ala Met Pro Ser Ala 50 60
458 Gly Thr Leu Pro Trp Val Gln Gly Ile Ile Cys Asn Ala Asn Asn Pro 460 65 70 75 80
464 Cys Phe Arg Tyr Pro Thr Pro Gly Glu Ala Pro Gly Val Val Gly Asn
470 Phe Asn Lys Ser Ile Val Ala Arg Leu Phe Ser Asp Ala Arg Arg Leu 472 100 105 110
    Leu Leu Tyr Ser Gln Lys Asp Thr Ser Met Lys Asp Met Arg Lys Val
478
482 Leu Arg Thr Leu Gln Gln Ile Lys Lys Ser Ser Ser Asn Leu Lys Leu
484 130 135 140
    Gln Asp Phe Leu Val Asp Asn Glu Thr Phe Ser Gly Phe Leu Tyr His
145 150, 155 160
494 Asn Leu Ser Leu Pro Lys Ser Thr Val Asp Lys Met Leu Arg Ala Asp 496 165 170 175
 500 Val Ile Leu His Lys Val Phe Leu Gln Gly Tyr Gln Leu His Leu Thr
502 180 185 190
               180
 506 Ser Leu Cys Asn Gly Ser Lys Ser Glu Glu Met Ile Gln Leu Gly Asp 508 195 200 205
 512 Gln Glu Val Ser Glu Leu Cys Gly Leu Pro Lys Glu Lys Leu Ala Ala
514 210 225
 518 Ala Glu Arg Val Leu Arg Ser Asn Met Asp Ile Leu Lys Pro Ile Leu
520 225 230 230 235
 524 Arg Thr Leu Asn Ser Thr Ser Pro Phe Pro Ser Lys Glu Leu Ala Glu 526 255
 530 Ala Thr Lys Thr Leu Leu His Ser Leu Gly Thr Leu Ala Gln Glu Leu 532 260 265 270
 536 Phe Ser Met Arg Ser Trp Ser Asp Met Arg Gln Glu Val Met Phe Leu
538 275 280 285
 542 Thr Asn Val Asn Ser Ser Ser Ser Ser Thr Gln Ile Tyr Gln Ala Val
544 290 295
 548 Ser Arg Ile Val Cys Gly His Pro Glu Gly Gly Leu Lys Ile Lys
```

KF. Y. 1.

### Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY PATENT APPLICATION: US/09/595,526 DATE: 09/06/2000

Input Set: A:\CVT 158.txt
Output Set: N:\CRF3\09062000\1595526.raw

```
"L:27 H:270 C: Current Application Number differs Replaced Application Number
 L:29 H:271 C: Current Filing Date differs, Replaced Current Filing Date
L:399 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:1
L:399 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:1
L:399 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:1
 L:399 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:1
L:399 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:1
L:403 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:1
L:403 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:1
 L:403 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:1
 L:403 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:1
 M:340 Repeated in SeqNo=1
 L:405 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:1
 L:405 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:1
 L:405 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:1
 L:405 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:1
 L:1368 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:4
L:1368 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:4
 L:1368 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:4
L:1368 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:4
 L:1368 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:4
 L:1370 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:4
 L:1370 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:4
 L:1370 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:4
 L:1370 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:4
 M:340 Repeated in SeqNo=4
 L:1372 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:4
 L:1372 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:4
 L:1372 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:4
L:1372 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:4
L:1374 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:4
L:1374 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:4
L:1374 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:4
 L:1374 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:4
L:1580 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:6
 L:1580 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:6
 L:1580 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:6
 L:1580 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:6
L:1580 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:6
 L:1584 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:6
 L:1584 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:6
L:1584 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:6
L:1584 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:6
 M:340 Repeated in SeqNo=6
L:1586 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:6
L:1586 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:6
 L:1586 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:6
 L:1586 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:6
```

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VERIFICATION SUMMARY

DATE: 09/06/2000

PATENT APPLICATION: US/09/595,526

526 TIME: 11:05:04

L:1945 M:258 W: Mandatory Feature missing, <220>.not found for SEQ ID#:7
L:1945 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:7
L:1945 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:7
L:1945 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:7
L:1945 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:7
L:1949 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:7
L:1949 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:7
L:1949 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:7
L:1949 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:7
L:1949 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:7
M:340 Repeated in SeqNo=7
L:3173 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:9
L:3173 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:9
L:3173 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:9
M:340 Repeated in SeqNo=9

9/6/00

TE STENEEDE LAND